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09/994,150	11/26/2001	S. Brandon Keller	10014117-1	8618

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HEWLETT PACKARD COMPANY
P O BOX 272400, 3404 E. HARMONY ROAD
INTELLECTUAL PROPERTY ADMINISTRATION
FORT COLLINS, CO 80527-2400

EXAMINER	
SANTOS, PATRICK J D	
ART UNIT	**PAPER NUMBER**
2171	2

DATE MAILED: 03/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/994,150	KELLER ET AL.	
	Examiner	Art Unit	
	Patrick J Santos	2171	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 November 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 November 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-8 and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,356,901 to MacLeod et al. (hereafter MacLeod '901), in view of U.S. Patent No. 5,228,121 issued to Fontaine et al. (hereafter Fontaine '121) and in further view of Applicant Admitted Prior Art (hereafter AAPA).

Regarding Claim 1, MacLeod '901 discloses a generic database generator application that takes multiple files, finds a driver that matches the file's type, and then uses the driver to load the file into a database. Specifically, MacLeod '901 discloses a method for generating a database (MacLeod '901: Abstract, lns. 1-2) based on at least one data file (MacLeod '901: col. 2, lns. 63-66) of at least one object included in a predefined object list (MacLeod '901: col. 2, ln. 64 to col. 3, ln. 4), said method comprising the steps of:

- generating a database based on said read data file (MacLeod '901: col. 8, lns. 5-29; Abstract, lns. 1-2).

Note that MacLeod '901 is analogous to applicant's disclosure in that both generate a database, from a plurality of input files, via tools that correspond to the input files' types. Also see MacLeod '901, Fig. 9.

MacLeod '901, generates a database in the order of the input files rather than the order of the file types (i.e. the order of the drivers). Thus, MacLeod '901 differs from applicant's disclosure in that it does not optimize the generation of a database by iterating through a predefined object list, and for each object loading all the corresponding files. Specifically, the method MacLeod '901 does not comprise:

- selecting an object from the predefined object list; and
- reading a data file of said selected object.

Furthermore, MacLeod '901 does not explicitly disclose that the generated database is an ECAD configuration database and does not explicitly disclose that said object is an ECAD tool.

Fontaine '121 discloses a document generation tool based on a plurality of files and a plurality of tools, and optimizes by processing the files in tool order. Specifically, Fontaine '121 teaches:

- selecting an object from the predefined object list (Fontaine '121: col. 9, lns. 6-11; col. 9, lns. 12-15); and
- reading a data file of said selected object (Fontaine '121: col. 9, lns. 16-17).

Note that the "data interface drivers" of MacLeod '901 (MacLeod '901: col. 2, ln. 64 to col. 3, ln. 4), are analogous to the "information objects" of Fontaine '121. Both contain a

routine on how to process file, based on the file's type. Further note that while the disclosed implementation of Fontaine '121 is via recursion, it is well known in the art that recursive routines are equivalently implemented via nested loops (See a data structures and algorithms text such as "Algorithms" by Robert Sedgewick, 2nd Edition, published by Addison-Wesley (TM), 1988, pp. 61-65).

Fontaine '121 does not explicitly disclose that the generated database is an ECAD configuration database and does not explicitly disclose that said object is an ECAD tool.

AAPA discloses the fact that a various ECAD tools have configuration files (AAPA: p. 2, ln. 21 to p. 3, ln.2).

It would have been obvious to a person having ordinary skill in the art to optimize the database generator of MacLeod '901 by ordering the loading in tool order as disclosed by Fontaine '121. The motivation to apply said optimization is suggested by Fontaine '121 which discloses that application of this optimization provides a speed processing advantage (Fontaine '121: col. 5, ln. 60 to col. 6, ln. 5).

It would have been further obvious to a person having ordinary skill in the art to substitute the ECAD files for the input data sources of MacLeod '901, and the ECAD tools of AAPA for the "data interface drivers" of MacLeod '901 in the modified database generator of MacLeod '901 and Fontaine '121 in combination. The motivation to combine is suggested by MacLeod '901, which discloses that the modified database generator of MacLeod '901 and Fontaine '121 in combination is directed to providing a generic mechanism to generate a database, regardless of input file type or "data interface driver" (MacLeod '901: col. 2, lns. 1-8;

col. 2, lns. 46-49; and col. 2, lns. 51-62). As such, a person having ordinary skill in the art in generating database, faced with the problem of consolidating multiple ECAD files into a database, is motivated to utilize the modified database generator of MacLeod '901 and Fontaine '121 in combination.

Claim 2:

Regarding Claim 2, MacLeod '901, Fontaine '121, and AAPA in combination disclose all the limitations of Claim 1 (supra). Further note that MacLeod '901, Fontaine '121, and AAPA in combination disclose:

- determining whether all ECAD tools from the tool list have been selected (Fontaine '121: col. 9, lns. 12-15);
- selecting a next ECAD tool when all ECAD tools have not been selected from the tool list (Fontaine '121: col. 9, lns. 12-15); and
- storing said configuration database file when all ECAD tools have been selected from the tool list (Fontaine '121: col. 9, lns. 21-25).

Claim 3:

Regarding Claim 3, MacLeod '901, Fontaine '121, and AAPA in combination disclose all the limitations of Claim 1 (supra). Further note that MacLeod '901, Fontaine '121, and AAPA in combination disclose:

- prior to said step of selecting an ECAD tool further comprises the step of defining a tool list having predefined ECAD tools (Fontaine '121: col. 8, ln. 65 to col. 9, ln. 4).

Claim 4:

Regarding Claim 4, MacLeod '901, Fontaine '121, and AAPA in combination disclose all the limitations of Claim 1 (supra). Further note that MacLeod '901, Fontaine '121, and AAPA in combination disclose: wherein said step of selecting an ECAD tool further comprises the steps of:

- defining a file list including at least one predefined data file of said selected ECAD tool (Fontaine '121: col. 9, lns. 12-17); and
- selecting a data file from said file list (Fontaine '121: col. 9, lns. 12-17).

Claim 5:

Regarding Claim 5, MacLeod '901, Fontaine '121, and AAPA in combination disclose all the limitations of Claim 4 (supra). Further note that MacLeod '901, Fontaine '121, and AAPA in combination disclose: wherein said at least one predefined data file includes an output file generated by said selected ECAD tool (AAPA: p. 2, ln. 21 to p. 3, ln.2).

Claim 6:

Regarding Claim 6, MacLeod '901, Fontaine '121, and AAPA in combination disclose all the limitations of Claim 4 (supra). Further note that MacLeod '901, Fontaine '121, and AAPA in combination disclose: wherein said at least one predefined data file includes a configuration file associated with said selected ECAD tool (AAPA: p. 2, ln. 21 to p. 3, ln.2).

Claim 7:

Regarding Claim 7, MacLeod '901, Fontaine '121, and AAPA in combination disclose all the limitations of Claim 4 (supra). Further note that MacLeod '901, Fontaine '121, and AAPA in combination disclose: wherein said step of selecting a data file further comprises the steps of:

- determining whether all data files from the file list have been selected (MacLeod '901: Fig. 6, item 216; col. 10, ln. 42 to col. 11, ln. 5); and
- selecting a next data file from the file list until all said at least one predefined data file have been selected (MacLeod '901: Fig. 6, item 216; col. 10, ln. 42 to col. 11, ln. 5).

MacLeod '901 is disclosing the processing of multiple tasks that correspond to a database load operation. Thus, in the context of processing data files, MacLeod '901 is disclosing the iteration through data files until completed.

Claim 8:

Regarding Claim 8, MacLeod '901, Fontaine '121, and AAPA in combination disclose all the limitations of Claim 1 (supra). Further note that MacLeod '901, Fontaine '121, and AAPA in combination disclose: wherein said step of reading a file further comprises the steps of:

- determining whether all data files of said selected ECAD tool have been read (MacLeod '901: Fig. 6, item 216; col. 10, ln. 42 to col. 11, ln. 5); and
- reading a next data file of said selected ECAD tool until all data files of said selected ECAD tool have been read (MacLeod '901: Fig. 6, item 216; col. 10, ln. 42 to col. 11, ln. 5).

Claim 10:

Regarding Claim 10, MacLeod '901 discloses a computer system for generating a database file (MacLeod '901: Abstract, lns. 1-2) based on at least one data file (MacLeod '901: col. 2, lns. 63-66) of at least one object included in a predefined object list (MacLeod '901: col. 2, ln. 64 to col. 3, ln. 4), comprising;

- a storage medium (MacLeod '901: col. 4, lns. 54-67);
- a processor for executing a program stored on the storage medium (MacLeod '901: col. 4, ln. 43) for generating a database file (MacLeod '901: Abstract, lns. 1-2) based on at least one data file (MacLeod '901: col. 2, lns. 63-66) of at least one object included in a predefined object list (MacLeod '901: col. 2, ln. 64 to col. 3, ln. 4), the program comprising a set of instructions for:
    - o generating a database file based on said read data file (MacLeod '901: col. 8, lns. 5-29; Abstract, lns. 1-2).

MacLeod '901 does not explicitly disclose that the program also comprises instructions for:

- o selecting an object from the predefined object list;
- o reading a data file; and

Furthermore, MacLeod '901 does not explicitly disclose that the objects correspond to ECAD tools, the files correspond to ECAD files, and the database file corresponds to a configuration database file.

Fontaine '121 discloses:

- o selecting an object from the predefined object list (Fontaine '121: col. 9, lns. 6-11; col. 9, lns. 12-15); and
- o reading a data file (Fontaine '121: col. 9, lns. 16-17).

Fontaine '121 does not explicitly disclose that the objects correspond to ECAD tools, the files correspond to ECAD files, and the database file corresponds to a configuration database file.

AAPA discloses the fact that a various ECAD tools have configuration files (AAPA: p. 2, ln. 21 to p. 3, ln.2).

It would have been obvious to a person having ordinary skill in the art to apply the optimization of Fontaine '121 to the database generator of MacLeod '901 on the same basis as described in Claim 1 (supra). It would have been further obvious to a person having ordinary skill in the art to apply the MacLeod '901 and Fontaine '121 combination to the ECAD tools and ECAD files of AAPA on the same basis as described in Claim 1 (supra).

Claim 11:

Regarding Claim 11, MacLeod '901 discloses a computer program product comprising a computer usable medium having computer readable program codes embodied in the medium that when executed causes a computer to:

- generating a configuration database file based on said read data file (MacLeod '901: col. 8, lns. 5-29; Abstract, lns. 1-2).

MacLeod '901 does not explicitly disclose that the computer readable program codes include the following:

- select an object from a predefined object list including at least one object; and
- reading a data file.

Furthermore, MacLeod '901 does not disclose that the objects correspond to ECAD tools and the files correspond to ECAD files.

Fontaine '121 discloses the computer readable program codes include the following:

- select an object from a predefined object list including at least one object (Fontaine '121: col. 9, lns. 6-11; col. 9, lns. 12-15); and
- reading a data file (Fontaine '121: col. 9, lns. 16-17).

Fontaine '121 does not disclose that the objects correspond to ECAD tools and the files correspond to ECAD files.

AAPA discloses the fact that a various ECAD tools have configuration files (AAPA: p. 2, ln. 21 to p. 3, ln.2).

It would have been obvious to a person having ordinary skill in the art to apply the optimization of Fontaine '121 to the database generator of MacLeod '901 on the same basis as described in Claim 1 (supra). It would have been further obvious to a person having ordinary skill in the art to apply the MacLeod '901 and Fontaine '121 combination to the ECAD tools and ECAD files of AAPA on the same basis as described in Claim 1 (supra).

3. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over MacLeod '901, Fontaine '121, and AAPA, in view of the web site www.cplusplus.com by The C++ Resources Network (TM) copyrighted 2000 (hereafter C++ '00).

Claim 9:

Regarding Claim 9, MacLeod '901, Fontaine '121, and AAPA in combination disclose all the limitations of Claim 1 (supra). However, MacLeod '901, Fontaine '121, and AAPA in combination do not explicitly disclose wherein said step of generating a configuration database file further comprises the steps of:

- determining whether a configuration database file exists in memory;
- creating a new configuration database file based on the read data file when a configuration database file does not exist in memory;

- determining whether a configuration database file is older than the read data file when a configuration database file does exist in memory; and
- appending data from the read data file to the existing configuration database file.

C++ '00 discloses: step of generating a configuration database file further comprises the steps of:

- determining whether a configuration database file exists in memory (C++ '00: see mode parameter table, entry for "A");
- creating a new configuration database file based on the read data file when a configuration database file does not exist in memory (C++ '00: see mode parameter table, entry for "A").
- determining whether a configuration database file is older than the read data file when a configuration database file does exist in memory (C++ '00: see mode parameter table, entry for "A"); and
- appending data from the read data file to the existing configuration database file (C++ '00: see mode parameter table, entry for "A").

It would have been obvious to a person having ordinary skill in the art to combine the file/append technique of C++ '00 with the MacLeod '901, Fontaine '121, and AAPA combination. The motivation to combine is well known in the art to C programmers, specifically that the append flag for the fopen() function is well known in the art to C programmers, and exists to prevent the older data in existing files from being overwritten. Furthermore, the append flag also allows streamed data to be persisted by appending to the end of an existing file, and

thus prevents the streamed data from being lost. In general, the technique discussed above is a common feature of logging operations.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Sedgewick, Robert, "Algorithms", 3rd Edition, Addison-Wesley (TM), 1988. Reference teaches the equivalence of a recursive routine and nested looping.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick J Santos whose telephone number is 703-305-0707. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on 703-308-1436. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patrick J.D. Santos
March 20, 2004

SAFET METJAHIC
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100